The Community Informatics of an Aging Society
A Comparative Case Study of Public Libraries and Senior Centers
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Prior Work

The global population is aging: In 2010 the median age of humanity was 29. By 2050 it will be 36 (U.N. 2013). Digital technologies are becoming ubiquitous in old age. But significant differences in adoption relate to age, income, and other factors (Pew, 2014). In this context, the social support older adults rely on to acquire digital literacy increase in importance (Xie, 2011). The hypothesis shaping this study is that maintaining and learning digital literacy in older adulthood requires stable support in local communities.

Literature Review

Older adult digital literacy more than declining minds & bodies (Bowen, 2012). Older adulthood is diverse (ALA, 2008), digital literacy is diverse too (Pew, 2014). Information infrastructures are central to social processes (Bar et al., 2002). Digital literacy shaped in society; Social product, not individual (Gee, 2010). Social shaping of older adult digital literacy under-examined (Xie, 2011).

Question To what extent and how does community-based information infrastructure support older adult digital literacy?

Method

Case studies of 6 sites in 1 urban area: 3 senior centers, 3 public libraries.
374 hours of participant observation with 209 older adults over 1.5 years. 54 older adult and 7 staff interviews.
Analysis uses extended case method, which “deployes participant observation to capture everyday life in its extracultural and historical context” (Burawoy 1998).

Preliminary Findings

<table>
<thead>
<tr>
<th># of participants</th>
<th>Age (ave.)</th>
<th># of lab computers</th>
<th># assistive computers</th>
<th># hours lab open/week</th>
<th>% regulars</th>
<th>% helped at least once</th>
<th>% used lab computers</th>
<th>% used personal devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tubman Senior Center</td>
<td>46</td>
<td>90%</td>
<td>73</td>
<td>6</td>
<td>0</td>
<td>30</td>
<td>82%</td>
<td>55%</td>
</tr>
<tr>
<td>Smith Senior Center</td>
<td>13</td>
<td>13%</td>
<td>72</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>60%</td>
<td>20%</td>
</tr>
<tr>
<td>Metro Senior Center</td>
<td>44</td>
<td>8%</td>
<td>75</td>
<td>0</td>
<td>0</td>
<td>n/a</td>
<td>53%</td>
<td>3%</td>
</tr>
<tr>
<td>Metro Library</td>
<td>21</td>
<td>33%</td>
<td>66</td>
<td>64</td>
<td>3</td>
<td>70</td>
<td>24%</td>
<td>0%</td>
</tr>
<tr>
<td>Main Library</td>
<td>72</td>
<td>28%</td>
<td>68</td>
<td>88</td>
<td>2</td>
<td>74</td>
<td>33%</td>
<td>0%</td>
</tr>
<tr>
<td>Branch Library</td>
<td>13</td>
<td>95%</td>
<td>58</td>
<td>20</td>
<td>0</td>
<td>54</td>
<td>50%</td>
<td>29%</td>
</tr>
</tbody>
</table>

| Sample was diverse. 59% white, 38% African-American, and 3% Asian-American. Whites were older, older African-Americans were younger. |

Diverse older adults = Diverse digital literacies

A counter-public sphere rooted in ethnic identity leads to higher African-American participation in their own information infrastructure.

Senior centers attract older people, and have less resources. Public libraries attract younger older adults, and have more resources.

Model of community-based information infrastructure for digital learning

Vital, inter-generational communities depend on widespread digital literacy, and opportunities to learn it throughout life. As older adults constitute larger percentages of communities, their lifelong learning of technology increases in importance. With support, older adults adapt information infrastructures to meet lifelong learning needs. Digital literacy then thrives. Communities are finding ways to support their own digital learning and literacy. By analyzing and understanding this phenomenon, community-based information infrastructures can be strengthened in all places.

Acknowledgements and Bibliography

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Prior Work

Inter-generational communities: Although the formal structure of the study included me hiring, training, and supervising a team of teenage digital archivists to design a digital library on local African-American history, older African-Americans were especially engaged in the project.

Ongoing research: In a past research project, eBlackCU, I analyzed how an African-American community uses technology to create, share and access heritage information.